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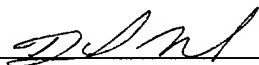
Date of Deposit January 9, 2002

PATENT
Attorney Docket No.: 018547-030130US
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By (Daniel Miranda)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Lemieux et al.

Application No.: Unassigned

Filed: January 9, 2002

For: BRASSICA POLYMORPHISMS

Examiner: E. Campbell

Art Unit: 1656

PRELIMINARY AMENDMENT UNDER
37 C.F.R. § 1.821-1.825

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In order to comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures, Applicants enclose a paper copy of the Sequence Listing filed in Application No. 08/813,507, filed March 7, 1997. In accordance with 37 C.F.R. § 1.821(e), please use the computer-readable form filed in Application No. 08/813,507 as the computer-readable form for the instant application. The information in the paper copy of the Substitute Sequence Listing enclosed herewith is identical to that which is in the computer readable form, as required under 37 C.F.R. § 1.821(f). It is understood that the Patent and Trademark Office will make the necessary changes in application number and filing date for the computer-readable form that will be used for the instant application.

IN THE SPECIFICATION:

Please replace the paragraph beginning on page 4, line 9, with the following:

Fig. 1 shows probe array tiles (SEQ ID NOS:3-29) for two allelic forms of the Brassica 18A2 polymorphism (SEQ ID NOS:1 and 2).

Please replace Table 1, beginning on page 8, line 10, with the following:

continued on next page

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Marker Name	Sequence	SEQ ID NO
1-85/5B5/86-1	AGCAAGCTTACATGCGTGA [G/T/AA] GAGAGTCCTCGAGATCAACC	30
2-85/5B12/N3-1	CCTTGATCTCTCAAGTAATC [A/G] TCTCACCGGAAGATCCCTGA	31
3-85/5C3/86-2	ACCATCCATTAAACTGTATC [A/G] TCGCAATCTAACCAAAAGTT	32
4-85/5E1/86-1	TAAAGCAAAGAGAGTCTTAC [C/A] GTCTGCTGCATGATATACCC	33
5-85/5E1/86-2	CTACTGATAGTGAACCAACCC [A/C] ATCCCCAAATTTAAAAGCAAA	34
6-85/6A11/86	ATCCTATTGGTAGTAACACA [G/A] ATTGAGTTAATGTTGCAGGG	35
7-N1/6A11/N2	AGGCAAAAGCGGTAGTTGCAA [G/A] ACTGCTTCTCAGGAGGTAAT	36
8-N1/6A9/N2-1	CCAGCTTCAAATGCTGTCATG [C/A] TTGTGTCGATGCCAAAAGTTC	37
9-N1/6A9/N2-2	AAAGTTTCATTACGATGATCT [A/G] ACCCTGCAGTCATCCATGGA	38
10-85/6A12/86	CTTCCCCCCTCAATACTC [T/G] TTCAAAAAGTGAAAAGTGCGAG	39
11-N1/6D1/N2-1	ATTTTGTTTTGTCTTCTTGTG [G/C] GGTCAGGTCAGAACAAAAGTT	40
12-N1/6H5/N2	AAACCAGAGCCACCTCCTTA [C/] CCACCTCATCGTTTCCCTTC	41
13-86/6F11/N2-2	GATTTCGACCGCAGTCTCAC [G/T] GAGGATGAGTATATCGCTTT	42
14-N1/6F11/N2	TAGGACAGGCAAAACAATCTA [C/A] GCGGTCAAAAATCCGATTTTCG	43
16-N1/8B5/N2	ACTCAAAAAAACGATACCTC [G/C] GCCGTCTCTCGCCCGTCTCGC	44
17-N1/8D4/N2-1	CAGGAGACAGTTACAGTCCC [/A] CAGAGTCGCAAGGATCTCGAA	45
18-85/8D4/86-2	CTGATCTTGAAGGAGAGAGACC [A/G] CCACAAAGTTTCCATCCTATG	46
19-85/8H11/86	AGTGCgAGGCTCAGTTGGAT [G/T] ATTAGGGTGTcAGTAAATCA	47
20-85/10B8/86	NAGGTCCATGATGATGACAA [T/A] AAAGGTATTCCACATGTCAA	48
21-N2/10B8/N3-2	ACATCCAACCTTTTCTCCAGT [T/C] CTTTATTTCTATCCTGATTTG	49
21-N2/10B8/N3-2	ACATCCAACCTTTTCTCCAGT [T/C] CTTTATTTCTATCCTGATTTG	50
22-N2/10B8/N3-1	AAGGTATTCCATTGGTATAC [A/C] TCCAACCTTTTCTCCAGTTCT	51

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23-85/10B9/86	GACCTTCTTGGGAAAGAAAG [T/C] TGTAACCGCGTCGAGATTGG	52
24-10C8/N2	ATAGAAAACCGCCGATGCTCA [A] GGACACGCCACCGTCTTTCGT	53
25-10C8/N2	CACCTTCTTCGTGGCTAAAT [T] CTTGCGCCGAGCCGGTCTCA	54
26-10D2/N1	GTTATCATCAGTACCGGTAT [T] AACCCCAAGGCTAATTCTTA	55
27-85/10D2	TTGGGTATCTACGGACTGAT [C] ATCGCTGTTATCATCAGTAC	56
28-N1/10E12/N2-1	GGAAATTCAATACTCGCCAAC [G/T] TCTTCATTGCTGTCGTGGC	57
29-N1/10E12/N2-2	TCCTTACGCCCTTCAAGCGCA [C/G] CGGCTGGCTCATGGGTGTCC	58
30-N1/10F4/N2	TGTATCTATGCGGTGGCTGC [G/C] GTCTCCGTTTCGCGCCAGTAC	59
31-10F4/N2	GCGCCAGTACCGCCGGTTAC [A] ATCTcACTGCCTTCACGTCC	60
32-85/10F4/N2	GCGCCAGTACCGCCGGTTAC [G/A] ATCTTAATGCCTTCACGTTT	61
33-85/10F9/N1-2	AACCTTGGAATTCCACAACCTT [G/C] AGAAACTTCGATGTGGTGCC	62
34-85/10F9/86	CGGTACTGCGAAAGCTGGAG [C/G] ATCAACTTGGAAATTCACAA	63
35-86/10F12	AAAAGTGCTATTGTTTCAGGT [G] GATGCTGCTCCGTTCAAGCA	64
36-85/10H6/86	GTCAAAAAGCCACGGATTCAA [G/A] AACGTGCTCTTCTTGGGCCT	65
38-85/10F12/86	AAACCAGGTCCTTGATGTG [T/] GTCTACAACGCTTCCAACAA	66
39-85/11B7/86	AANACCCCTGAGCTCATGCCT [C/T] TGACCCCATGTTCTTGCCACC	67
40-85/11C4/86	TTTGGGACCGTTGGAGTTGC [A/G] TCTGCGGCTATGACGGTGGA	68
41-85/11D4/86-2	AATCTTTGCCAATTGCTGTCA [A/G] TATCTTCGTCAGCTTCAGCT	69
43-N2/11D11/N3	GACAAACGCTGTTGGTATTGC [C/T] GAAATGGCTGGAATGAGCCA	70
44-86/11D11/N3	GCTGCTCTAGGGATGCTCAG [C/T] ACCATCGCCACCGGTTTGGC	71
45-85/11D11/86	ATGCTCAGCACCATCGCCAC [T/C] GGTTTgGCGATTGATGCTTA	72
46-N2/11E3/N8a	GAGAAAAGTGCTTGTGGAGAT [C/T] TACAAGTCCATACTGATGGC	73
47-86/11E3/N2a	AATGCTTGTGGAGATTACA [G/A] GTCCATACTGATGGCGCAGG	74

48-86/11E3/N2b	AATGCTTGTGGAGATcTACA [G/A] GTCCATACTGATGGCGCAGG	75
49-85/11F12/86	AATGATTGGTTTGAGAAAGCA [T/A] ACAGCTGGTACGCTTGATAT	76
50-85/11F7/86	GATAGGGCGAAGAGAGGGAA [G/A] AGTCTCTGAGAGGAAAAGAGAT	77
51-85/11H2/86-2	CTCTCTCTCCACAAAGACAC [A/C] GCTTTCTCCATGACCTTCGG	78
52-85/11H5/86-2	TCTCTGACGTcATGAAAGCT [C/A] ATGGCAAAAATTGCTGATGGA	79
53-85/11H6/86-1a	GTTATCGATCGGTGGTCGG [T/C] GAAACCCAAAAATaCACCTTT	80
54-85/11H6/86-1b	GTTATCGATCGGTGGTCGG [T/C] GAAACCCAAAAATcCACCTTT	81
55-85/12B6/N3	CGTCAGCCTTCTTCCGCCGC [A/C] GTCGTCTCCGCAACCGTGC	82
56-86/12B6/85a	TGTCTCTTCCGTCAGCCTTC [C/T] TCCGCCGCAGTCGTCTCTCCG	83
57-86/12B6/85b	TGTCTCTTCCGTCAGCCTTC [C/T] TCCGCCGCCcGTGTCCTCCG	84
58-86/12B11/85	TCAGGTTTACCTCTATATAT [T/] ATATTTCATGGTATGAAGGT	85
59-n1/12B11/N2-2	TATCCTGCAAATTGACATTT [T/C] CCTTCAGGTTCTAGAAGCTG	86
60-85/12C2/86	CGAGAAcAGAAAGAGAAGA [C/] TGGAACACGTCGGACAGTAC	87
62-12C11/N2	ACGGGTCTAGCGCCATGGC [T] ATTTTCTCTCACCGTTTCTGG	88
63-N1/12D10	TTGGGCTTTCCGGTGGTATGA [T] CTTCTGTCCTCGTCTATTGCA	89
65-85/12F4/86-1	TCCTTGATTCTTAAATAATC [A/T] TTGGCTGGGGGTCTTTTCTAA	90
66-12G5/N1	GCTTGAAATAACGATGTCTAC [T] CTGCCCTCGGCGTACGGCGGA	91
67-85/12G8	CTAAAAAGATCGACGAGTGT [C] CCTTACTACGCTCCATCTAT	92
68-12G9/N1-1	AGGTGGGTTTAGCGTGGCAT [C] CGATCCATTGGATGGATCCA	93
69-85/12G9/	NGTGGGTTTACCGTATCATTT [T] GATCCATTGGATGGATCGAG	94
70-12B11/N2-1	GCGGATCCTATATTGGGTCT [T] GATGGATTGTTTCTATATCCCG	95

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71-12B11/N2-2	TATCCTGCAAAATTGACATTT [C] CCTTCAGGTTCTAGAAGCTG	96
72-N1/12E10	TACCACGGTCGTACTGGTCG [A] TGTCTGGAACGTCAACCAAGC	97
73-N1/13A3/N2a	CTGTCTCagTTTGTGGATC [C/G] AAATCgAAATCGAAAGCGTAC	98
74-N1/13A3/N2b	CTGTCTCagTTTGTGGATC [C/G] AAATCaAAATCGAAAGCGTAC	99
75-13E8/N2	ACACTGTTGGAGGACGTGAA [G] AAGATATTCAAGACAACATC	100
76-N1/13F6/N2-2	TCTTTCGTATCTTGTCTGAGT [C/T] GTTACGCCCTGTCAACACCCG	101
77-13F8/N2-1	GGAACCCTAGGAGCCACA [G] CTCCTTATGCTAAGCGCGT	102
78-13F8/N2	GATCATAGTATCCGCCGAA [C] CTTAGGGAGCCCCACAGCTCC	103
79-85/14B5/86	TTCGCGGGTCGATCCGGC [A/G] GAAAGACATTTGTcAGGTGANN	104
80-N1/14C2/N2	GCACCAACATTTGTAACCTA [T/G] AGCTTCTTCTCAGCCACCT	105
81-85/14C2/86-1	GCTGCCACATAGTGAACCTA [T/A] AGCTTCTTCTCAGCCACCT	106
82-N2/14C2/85-2	GCACCAACATTTGTGAACCTA [G/A] AGCTTCTTCTCAGCCACCT	107
83-85/14C2/86-2	AGTACATAGCTATTGACTAA [C/G] TTAAGTTCTTGTATTGTTG	108
84-N2/14C2/85-1	CCTCTATCCGCCCATGGTTGC [A/T] CCAACATTTGTGAACCTAGAG	109
85-85/14E2/86-2	TTGACCCCTCGGCAAGCCACC [G/T] GTCAAGCCATGCTGCAGCCT	110
86-85/14E2/86-1	AGGCTGCCCTCTCCCAATTC [A/C] AAAGCCAACCTCTAAACCAA	111
87-85/14E8/86	AAACATGGAAGGCCTGATA [/G] TCACCGTCAAGCTCACCGTC	112
88-85/14E12/86	CAACCTGAAAAATTGTTTTA [C/A] CAACGGCCCCGCTTTCTCCA	113
89-14H10/86	AAGGCCAACAAACGACATTAC [C] TCCATCGTTAGCAACGGAGG	114
90-85/14H10/86	TCACCGGCTTGAAGTCTTCC [G/T] CTGCAATTTCCAGTCAACCCG	115
91-85/15A6/86	ACTCAGCTTCTTATGCCTC [G/] ACTTGCACACACGAAATCCA	116

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92-85/15C4/86	TGCGGCTAACATCTCTGGTG [G/T] TCACCTTAACCCAGCCGTAN	117
93-85/15E5/86-1	CGAGGATCACTTCTCTCTGT [G/T] CAAGAAGAAGTTCGGcAAGG	118
94-N1/15E5/N2-1	CTGTtCAAGAAGAAGTTCGG [C/T] AAGGTCTACGCTTCCC CGGA	119
95-N1/15E5/N2-2	CCCTCTGTCTGTCACGGCGT [T/A] ACGCAGTTCCTCGGATCTGAC	120
96-86/15E5/N2	CCCGGAGGAGCAGACTAC [A/T] GATTCTCCGTTTTCAAATCC	121
97-15E9/86	TCCACTCGCCGGGAAGAAAC [T] CGACAAAACCGTTGTCTACTT	122
98-N2/15E9	ATGGCTCGGACGGGTCTCC [G] GTAAACCTCGGAGAGCAGAT	123
99-N2/15E9/86	GCCGACTCTCGAAGCTTCTT [A/] ACTCCACTCGCCGGGAAGAA	124
100-85/15E9/86-1	GAATCTAGGAGAGCAGATCT [T/G] CCTCTATATCTTCAATGTTT	125
101-85/15E9/86-2	TCCACTCGCCGGGAAGAAAC [C/T] CGACAAACCGTTGTCTACAT	126
102-N1/15E9/N2-1	GTCATGAAGATATTCACTAC [A/G] CCGACTCTCGAAGCTTCTTA	127
103-85/15F1/86	GCAGTAAAAATTCTACAGAC [C/A] TTCCCTTTTCAATTGTAGTTA	128
105-85/15F10/86	GTGCCCCATAAGATACCCCTCA [A/G] GCTTGGTGTCTGCGCTAATG	129
106-N2/15G1	TTCTTCCCACAGGTGAAACT [T] GCTAACTTCCTTCCAAAAGTA	130
107-N1/15H7/N2	TATGTATCAGGACAATGTGT [GA/TT] GTGACTGTGGTTGCATCCAT	131
108-N1/16A1/N2-1	GCTAAGCTACGCAACTGCCA [C/T] CAATCAGGGCAAGCTAAAGG	132
109-85/16A5/86	TATACACTCTTTAAAAAGCGT [G/C] TGTGTGTACCCCATCTCTCTT	133
110-N1/16B6/N2	ATGGCTGCGTATTGGCTGTC [C/T] AAGGCTGGATCTTGGTCCCA	134
111-85/16B6/N1	GGATCCATCTCAACTATGGT [A/C] GTATTATCGTTGAGGCTAGG	135
112-85/16B7/86	GTATGTGATTCCGAAGAGAA [T/] CAAACTAAGTGCCGAGAAAG	136
113-N1/16D6/N2	GCTAAGGTAGTTGGAGGAGC [CAA/GTG] CCACAGCCACGCGACTAAGG	137
114-85/16D10/86	CTCAACGTAGCAAGTAATAA [T/G] ATACTGTCTATTTATGGTTA	138

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115-N1/16E9/N2	AGACTTTCCTCCCATTTCTCTTC [T/A] CCATCCACCGTCGAAACCCCA	139
116-85/16H3/86-1	ACTTCGAAACTGTAAACCTA [A/T] ACTTTAAGAGTTTAGAGCTA	140
117-85/16H3/86-2	CACCATCGGAGAAAGAGGTA [C/T] TTCGAAACTGTAAACCTAAA	141
118-85/17A5/86	CTAAGGCGTCTCTGAAAGAA [A/G] TACAGAGAGTCGAAGAAAGAT	142
119-85/17C7/86	CCGCGGACGACGCTTTCTTC [C/A] TCTGCTCCACCGCGAGCGCC	143
120-85/17F7/86	GAGGAGTAGTCTCCATGGCC [G/] AAGAAAGAGCGTCGGAGACCTG	144
121-85/17G12/86	GAAGTTAGGGCTTCTAAGAT [C/T] AAGTTCGGCAAGGCTTTTAAAC	145
122-85/18A2/86	TCAAAACTAATATTTCTTTT [G/C] TTGATTGGTTAATAAACAGGT	146
123-85/18A11/86	TTCCAGTGAAAAGGCATTGT [T/G] CTCCAAAATCTCGCTCTGCG	147
124-85/18F5/86	AAGCAGCTCTGACTTGAATG [C/A] GAGAGGTTAATCAGACTGTG	148
125-85/18H10/86-3	TAGATTGAAGCAATCAAGAA [G/A] ATCTCAGACTTCATCACCCCA	149
126-85/19B3/86	GCATCCAACTCCAAGGAAGA [C] CCTGCCAAGGTGCTGCTAACT	150
127-85/19C8/86	GAGCTCAGGGATGGTGGATC [A/T] GACTACCTTGGAAGGGTGT	151
128-N1/19F4/N2	TGGGGTTAGTCGAAAATAGGT [A/T] AAATGCTTTGAGTATGTGTA	152
129-N1/19H1/N2	TACGCGCAGCACGGACTTGC [G/A] ACGCAAGCAATCGAGCTTTT	153
130-85/20B4/86-1	GAAGCCCATGGTACGGAGCG [G/A] GAGAGAGTCAAGTACTTGGG	154
131-N1/20B12/N2	AACGGGTCACTGCTAAATCA [T/A] AAGGATCACAAAGGCTGGGAC	155
132-85/20C12/86	CTAGCCCTACTTTGGGAAAAG [/T] TTCGTTATTGTTTTGTGTGG	156
133-85/20D2/86	GACTTCAAGGACTTCGCCGG [A/C] AAATGCTCCGACGCTGTCAA	157
134-85/20D3/86-2	GAGGAGGGCTACATGCAGCT [G/A] AAGAGGCTGAGGGGGCTAAA	158
135-85/20D6/86-4	GATGTTCAACCTATGAAGAA [G/C] AAACACCGAGGACCAACGAG	159
136-85/20D6/86-5	CCATTAGTGAGGGAGCATGT [T/A] CCTGTCACATTTGATGATTG	160

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137-85/20D6/86-8	AAACACATCGCCAAAGATCC [CG/AA] ACACTCGAGAAAGAGTGGAG	161
138-N1/20D8/N2	CTCATAGCGGATCTGGAGTA [T/G] GCAAATCGAATCTCCTCTCC	162
139-N1/20E1/N2	TGCACGCCCTCAGTTGTTCCCT [T/A] CCAATCTGACATCAAGGATT	163
140-N1/20F1/N2-1	NGTGTTTTGGAGGTGAAAGC [A/T] ACAATGGAGATACCTTTT	164
141-N1/BoC-a2/N3-2	CCCGAGCCATTAGGACAAGA [T/C] GACTTGCCGTTTGACCAAAC	165
142-N1/BOC-A2/N3-1	CCCATCTCATCCTTTCTTGA [A/G] CCGTTGAATCAAGCTCCTGG	166
143-N1/BoC-a2/N3-3	TACATTCTCATTTGGTTGGTT [C/A] TTGGGAAATAAAGTACCAAC	167
144-86/SC3	GCACGCGCTAGAGTTGTTGC [C] AGAAGGAATGAACAATCTGA	168
145-N3/SC3/N4-1	CTTGAGACCTATAGTCCTGT [A/T] GTTCGGTCCGCCACAGTTCG	169
146-N3/SC3/N5-1	CACAGTTCGTACAGTTCTTC [A/C] CATTGCCACTGTTATGCACT	170
147-N1/SC3/N3-1	GAAGGCGTCCACTATCTTGA [A/G] ACCTATAGTCCCTGTTGTTTCG	171
148-86/SC3/N4-1	TCCCGGAAATCTTGCTGAAA [A/C] CGTTTACCTGCGACAACCAG	172
149-B11/N5-1	ATGTCTTCAAAGTGCTCTGT [T] GCAACGCACGTCCTCGAACAAG	173

Please insert the accompanying paper copy of the sequence listing, page numbers 1-37, before the claims.

REMARKS

The information contained in the computer readable form of Application No. 08/813,507 was prepared through the use of the software program "PatentIn" and was identical to that of the paper copy. This amendment contains no new matter.

Attached hereto is a marked-up version of the changes made to the claims by the amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



Joe Liebeschuetz
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PA 3193060 v1

The paragraph beginning on page 4, line 9 has been amended as follows:

Table 1 beginning on page 8, line 10 has been amended as follows:

PATENT

TABLE 1

Marker Name	Sequence	SEQ ID NO
1-85/5B5/86-1	AGCAAGCTTACATGCGTGGA [GT/AA] GAGAGTCTTCGAGATCAACC	<u>30</u>
2-85/5B12/N3-1	CCTTGATCTCTCAAGTAATC [A/G] TCTCACCGGAAGATCCCTGA	<u>31</u>
3-85/5C3/86-2	ACCATCCATTAAACTGTATC [A/G] TCGCAATCTAACCAAAAGTT	<u>32</u>
4-85/5E1/86-1	TAAAGCAAAAGAGAGTCTTAC [C/A] GTCTGCTGCATGATATACCC	<u>33</u>
5-85/5E1/86-2	CTACTGATAGTGAACCCACC [A/C] ATCCCCAAATTTAAAGCAAA	<u>34</u>
6-85/6A11/86	ATCCTATTGGTAGTAACACA [G/A] ATTGAGTTAATGTTGCAGGG	<u>35</u>
7-N1/6A11/N2	AGGCAAAAGCGGTAGTTGCAA [G/A] ACTGCTTCTCACGAGGTAAT	<u>36</u>
8-N1/6A9/N2-1	CCAGCTTCAATGTCTGCATG [C/A] TTGTGTCGATGCCAAAAGTTC	<u>37</u>
9-N1/6A9/N2-2	AAAGTTCATTACGATGATCT [A/G] ACCCTGCAGTCAATCCAATGGA	<u>38</u>
10-85/6A12/86	CTTCCCCCCTCAATACCTC [T/G] TTCAAAAGTGAAAGTGCAG	<u>39</u>
11-N1/6D1/N2-1	ATTTTGTTTTGTCTTGTGTC [G/C] GGTCAAGTCAAGACAAAGTT	<u>40</u>
12-N1/6H5/N2	AAACCAGAGCCACCTCCTTA [C/] CCACCTCATCGTTTCCCTTTC	<u>41</u>
13-86/6F11/N2-2	GATTTTCGACCGCAGTCTCAC [G/T] GAGGATGAGTATATCGCTTT	<u>42</u>
14-N1/6F11/N2	TAGGACAGGCAAAACAATCTA [C/A] GCGGTCAAAATCCGATTTTCG	<u>43</u>
16-N1/8B5/N2	ACTCAAAAAAACGATACCTC [G/C] GCCGTCTCTCGCCGTCCTCGC	<u>44</u>
17-N1/8D4/N2-1	CAGGAGACAGTTACAGTCCC [/A] CAGAGTCGCAAGGATCTCGAA	<u>45</u>
18-85/8D4/86-2	CTGATCTTGAAGGAGAGACC [A/G] CCACAAGTTTCCATCCTATG	<u>46</u>
19-85/8H11/86	AGTGCgAGGCTCAGTTGGAT [G/T] ATTAGGGTGTCAAGTAAATCA	<u>47</u>
20-85/10B8/86	NAGGTCCATGATGATGACAA [T/A] AAAGGTATTCCACATGTCAA	<u>48</u>
21-N2/10B8/N3-2	ACATCCAACCTTTTCTCCAGT [T/C] CTTTATTCTATCCCTGATTTG	<u>49</u>

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21 - N2/10B8/N3 - 2	ACATCCAACTTTTCTCCAGT [T/C] CTTTATTCTATCCTGATTG	<u>50</u>
22 - N2/10B8/N3 - 1	AAGGTATTCATTGGTATAC [A/C] TCCAACTTTTCTCCAGTTCT	<u>51</u>
23 - 85/10B9/86	GACCTTCTTGGGAAAGAAAG [T/C] TGTAACCGCGTCGAGATTGG	<u>52</u>
24 - 10C8/N2	ATAGAAACCGCCGATGCTCA [A] GGACACGCCACCGTCTTCGT	<u>53</u>
25 - 10C8/N2	CACTTTCTTCGTGGCTAAAT [T] CTTGCGCCGAGCCGGTCTCA	<u>54</u>
26 - 10D2/N1	GTATCATCAGTACCGGTAT [T] AACCCCAAGGCTAAATTCTTA	<u>55</u>
27 - 85/10D2	TTGGGTATCTACGGACTGAT [C] ATCGCTGTTATCATCAGTAC	<u>56</u>
28 - N1/10E12/N2 - 1	GGAATTCAATACTCGCCAAC [G/T] TCTTCATTGCTGTCGTGGC	<u>57</u>
29 - N1/10E12/N2 - 2	TCCTTACGCCTTCAAGCGCA [C/G] CGGCTGGCTCATGGGTGTCC	<u>58</u>
30 - N1/10F4/N2	TGTATCTATGCGGTGGCTGC [G/C] GTCTCCGTTTCGCCCAGTAC	<u>59</u>
31 - 10F4/N2	GCGCCAGTACCGCCGGTTAC [A] ATCTcACTGCCTTCACGTCC	<u>60</u>
32 - 85/10F4/N2	GCGCCAGTACCGCCGGTTAC [G/A] ATCTTAATGCTTTCACGTTT	<u>61</u>
33 - 85/10F9/N1 - 2	AACTTGGAATTCCACAACCTT [G/C] AGAAACTTCGATGTGGTGCC	<u>62</u>
34 - 85/10F9/86	CGGTACTGCCGAAAGCTGGAG [C/G] ATCAACTTGGAATTCCACAA	<u>63</u>
35 - 86/10F12	AAAAGTGTATTGTTTCAGGT [G] GATGCTGCTCCGTTCAAGCA	<u>64</u>
36 - 85/10H6/86	GTCAAAAAGCCACGGATTCAA [G/A] AACGTGCTCTTCTTGCGCCT	<u>65</u>
38 - 85/10F12/86	AAACCAGGTCCTTGATGTG [T/] GTCTACAACGCTTCCAACAA	<u>66</u>
39 - 85/11B7/86	AANACCCCTGAGCTCATGCTT [C/T] TGACCCCATGTTCTTGCCACC	<u>67</u>
40 - 85/11C4/86	TTTGGGACCGTTGGAGTTGC [A/G] TCTGCGGCTATGACGGTGGA	<u>68</u>
41 - 85/11D4/86 - 2	AATCTTTGCCATTGCTGTCA [A/G] TATCTTTCGTCAGCTTTCAGCT	<u>69</u>
43 - N2/11D11/N3	GACAAACGCTGGTGGTATTGC [C/T] GAAATGGCTGGAATGAGCCA	<u>70</u>
44 - 86/11D11/N3	GCTGCTCTAGGGATGCTCAG [C/T] ACCATCGCCACCGGTTTGCC	<u>71</u>

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45-85/11D11/86	ATGCTCAGCACCATCGCCAC [T/C] GGTtTgCGGATTGATGCTTA	<u>72</u>
46-N2/11E3/N8a	GAGAAAAGTGCTTGTGGAGAT [C/T] TACAAGTCCATACTGATGGC	<u>73</u>
47-86/11E3/N2a	AATGCTTGTGGAGATtTACA [G/A] GTCCATACTGATGGCGCAGG	<u>74</u>
48-86/11E3/N2b	AATGCTTGTGGAGATcTACA [G/A] GTCCATACTGATGGCGCAGG	<u>75</u>
49-85/11F12/86	AATGATTGGTTTGAGAAAGCA [T/A] ACAGCTGGTACGCTTGATAT	<u>76</u>
50-85/11F7/86	GATAGGGCGAAGAGAGGGAA [G/A] AGTCTTGAGAGGAAAAGAGAT	<u>77</u>
51-85/11H2/86-2	CTCTCTCTCCACAAAAGACAC [A/C] GCTTTCTCCATGACCTTCGG	<u>78</u>
52-85/11H5/86-2	TCTCTGACGTCATGAAAGCT [C/A] ATGGCAAAAATTGCTGATGGA	<u>79</u>
53-85/11H6/86-1a	GTTATCGATCGCGTGGTCCG [T/C] GAAACCCAAAAATaCACCTTT	<u>80</u>
54-85/11H6/86-1b	GTTATCGATCGCGTGGTCCG [T/C] GAAACCCAAAAATtCACCTTT	<u>81</u>
55-85/12B6/N3	CGTCAGCCTTCTTCCGCCGC [A/C] GTCGTCTCTCCGCAACCGTGC	<u>82</u>
56-86/12B6/85a	TGTCTCTTCCGTcAGCCTTC [C/T] TCCGCCGCAGTCGTCCCTCCG	<u>83</u>
57-86/12B6/85b	TGTCTCTTCCGTcAGCCTTC [C/T] TCCGCCGCcGTcGTCTCCTCCG	<u>84</u>
58-86/12B11/85	TCAGGTTTACCTCTATATAT [T/] ATATTTcATGtATGAAGGT	<u>85</u>
59-n1/12B11/N2-2	TATCCTGCAAAATTGACATTT [T/C] CCTTCAGGTTCTAGAAGCTG	<u>86</u>
60-85/12C2/86	CGAGAACAGAGAAGAGAAGA [C/] TGGAAcACGTCGGACAGTAC	<u>87</u>
62-12C11/N2	ACGGGTCTTAGCGCCATGGC [T] ATTTTCCTcACCGTTTCTGG	<u>88</u>
63-N1/12D10	TTGGGCTTTCGGTGGTATGA [T] CTTCGTCTCTCGTCTATTGCA	<u>89</u>
65-85/12F4/86-1	TCCTTGATTCCCTTAATAATC [A/T] TTGGCTGGGGGTCTTTCTAA	<u>90</u>
66-12G5/N1	GCTTGAATAACGATGTCTAC [T] CTGCCTCGGGGTACGGCGGA	<u>91</u>
67-85/12G8	CTAAAAAGATCGACGAGTGT [C] CCTTACTACGCTCCCATCTAT	<u>92</u>

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68-12G9/N1-1	AGGTGGGTTTAGCGTGGCAT [C] CGATCCATTGGATGGATCCA	<u>93</u>
69-85/12G9/ 70-12B11/N2-1	NGTGGGTTTACCGTATCATT [T] GATCCATTGGATGGATCGAG GCGGATCCTATATTGGGTCT [T] GATGGATTGTTTCTATCCCG	<u>94</u> <u>95</u>
71- /12B11/N2-2	TATCCTGCAAAATTGACATT [C] CCTTCAGGTTCTAGAAAGCTG	<u>96</u>
72-N1/12E10	TACCACGGTCGTACTGGTCG [A] TGTCTGGAACGTCACCAAGC	<u>97</u>
73-N1/13A3/N2a	CTGTCTCagTTTGTGGATC [C/G] AAATCgAATCGAAAGCGTAC	<u>98</u>
74-N1/13A3/N2b	CTGTCTCagTTTGTGGATC [C/G] AAATCaAATCGAAAGCGTAC	<u>99</u>
75-13E8/N2	ACACTGTTGGAGGACGTGAA [G] AAGATATTCAAGACAACATC	<u>100</u>
76-N1/13F6/N2-2	TCTTTCGTATCTTGCTGAGT [C/T] GTTACGCCCTGTCAACACCCG	<u>101</u>
77-13F8/N2-1	GGAACCTTAGGGAGCCACA [G] CTCCTTATGCTAAGGGCGT	<u>102</u>
78-13F8/N2	GATCATAGTATCCGCCGAA [C] CCTAGGAGGCCACAGCTCC	<u>103</u>
79-85/14B5/86	TTCGGCGGTCGATCCGGGC [A/G] GAAGACATTGTCAGGTGANN	<u>104</u>
80-N1/14C2/N2	GCACCAACATTGTAAACCTA [T/G] AGCTTCTTCTCAGCCACCT	<u>105</u>
81-85/14C2/86-1	GCTGCCACATAGTGAACCTA [T/A] AGCTTCTTCTCAGCCACCT	<u>106</u>
82-N2/14C2/85-2	GCACCAACATTGTGAACCTA [G/A] AGCTTCTTCTCAGCCACCT	<u>107</u>
83-85/14C2/86-2	AGTACATAGCTATTGACTAA [C/G] TTAAGTTCTTGTATTGTTG	<u>108</u>
84-N2/14C2/85-1	CCTCTATCCGCCATGGTTGC [A/T] CCAACATTGTGAACCTAGAG	<u>109</u>
85-85/14E2/86-2	TTGACCCCTCGGCAAGCCACC [G/T] GTCAAAGCCATGCTGCAGCCT	<u>110</u>
86-85/14E2/86-1	AGGCTGCCCTCTCCCAATTC [A/C] AAAGCCAACCTCTAAACCAA	<u>111</u>
87-85/14E8/86	AAACATGGAAGGCCGTGATA [/G] TCACCGTCAAGCTCACCGTC	<u>112</u>
88-85/14E12/86	CAACCTGAAAAAATTGTTTAA [C/A] CAACGGCCCCGCTTTCCTCCA	<u>113</u>

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89-14H10/86	AAGGCCAACACGACATTAC [C] TCCATCGTTAGCAACGGAGG	<u>114</u>
90-85/14H10/86	TCACCGGCTTGAAGTCTTCC [G/T] CTGCATTCCCAAGTCACCCGC	<u>115</u>
91-85/15A6/86	ACTCAGCTTTCCTTATGCCTC [G/] ACTTGCACACACGAAATCCA	<u>116</u>
92-85/15C4/86	TGCGGCTAACATCTCTGGTG [G/T] TCACCTTAACCCAGCCGTAN	<u>117</u>
93-85/15E5/86-1	CGAGGATCACTTCTCTCTGT [G/T] CAAGAAGAAGTTCGGCAAGG	<u>118</u>
94-N1/15E5/N2-1	CTGTtCAAGAAGAAGTTCGG [C/T] AAGGTCTACGCTTCCCGGA	<u>119</u>
95-N1/15E5/N2-2	CCCTCTGCTCGTCACGGCGT [T/A] ACGCAGTTCTCGGATCTGAC	<u>120</u>
96-86/15E5/N2	CCCGCGAGGAGCAGACTAC [A/T] GATTCTCCGTTTTTCAAATCC	<u>121</u>
97-15E9/86	TCCACTCGCCGGGAAGAAAC [T] CGACAAACCGTTGTCTACTT	<u>122</u>
98-N2/15E9	ATGGCTCGCGACGGGTCTCC [G] GTAAACCTCGGAGAGCAGAT	<u>123</u>
99-N2/15E9/86	GCCGACTCTCGAAGCTTCTT [A/] ACTCCACTCGCCGGGAAGAA	<u>124</u>
100-85/15E9/86-1	GAATCTAGGAGAGCAGATCT [T/G] CCTCTCTATCTTCAATGTTT	<u>125</u>
101-85/15E9/86-2	TCCACTCGCCGGGAAGAAAC [C/T] CGACAAACCGTTGTCTACAT	<u>126</u>
102-N1/15E9/N2-1	GTCATGAAGATATTCACTAC [A/G] CCGACTCTCGAAGCTTCTTA	<u>127</u>
103-85/15F1/86	GCAGTAAAAATTCTACAGAC [C/A] TTCCCTTTTTCATTGTAGTTA	<u>128</u>
105-85/15F10/86	GTGCCCTAAAGATACCCCTCA [A/G] GCTTGGTGTCTGCGCTAATG	<u>129</u>
106-N2/15G1	TTCTTCCCACAGGTGAAACT [T] GCTAACTTCCTTCCAAAAGTA	<u>130</u>
107-N1/15H7/N2	TATGTATCAGGACAATGTGT [GA/TT] GTGACTGTGGTTGCATCCAT	<u>131</u>
108-N1/16A1/N2-1	GCTAAGCTACGCAACTGCCA [C/T] CAATCAGGGCAAGCTAAAGG	<u>132</u>
109-85/16A5/86	TATACACTCTTTAAAAAGCGT [G/C] TGTGTGTACCCCATCTCTCTT	<u>133</u>

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110-N1/16B6/N2	ATGGCTGCGTATTGGCTGTC [C/T] AAGGCTGGATCTTGGTCCCA	<u>134</u>
111-85/16B6/N1	GGATCCATCTCAACTATGGT [A/C] GTATTATCGTTGAGGCTAGG	<u>135</u>
112-85/16B7/86	GTATGTGATTTCGGAAGAGAA [T/] CAAACTAAGTCCGAGAAAG	<u>136</u>
113-N1/16D6/N2	GCTAAGGTAGTTGGAGGAGC [CAA/GTG] CCACAGCCACGCGACTAAGG	<u>137</u>
114-85/16D10/86	CTCAACGTAGCAAGTAATAA [T/G] ATACTGTCTATTTATGGTTA	<u>138</u>
115-N1/16E9/N2	AGACTTTCCTCCATTCTCTTC [T/A] CCATCCACCGTCGAAACCCA	<u>139</u>
116-85/16H3/86-1	ACTTCGAAACTGTAAACCTA [A/T] ACTTTAAGAGTTTAGAGCTA	<u>140</u>
117-85/16H3/86-2	CACCATCGGAGAAAGAGGTA [C/T] TTCGAAACTGTAAACCTAAA	<u>141</u>
118-85/17A5/86	CTAAGGCGTCTCCTGAAGAA [A/G] TACAGAGAGTCGAAGAAGAT	<u>142</u>
119-85/17C7/86	CCGCGGACGACGCTTTCTTC [C/A] TCTGCTCCACCGCGAGCGCC	<u>143</u>
120-85/17F7/86	GAGGAGTAGTCTCCATGGCC [G/] AAGAAGAGCGTCGGAGACCTG	<u>144</u>
121-85/17G12/86	GAAGTTAGGCGTTCTAAGAT [C/T] AAGTTCGGCAAGGCTTTAAC	<u>145</u>
122-85/18A2/86	TCAAAACTAAATATTTCTTTT [G/C] TTGATTGGTAATAAACAGGT	<u>146</u>
123-85/18A11/86	TTCCAGTGAAGGCAATGT [T/G] CTCCTCAAAATCTCGCTCTGCG	<u>147</u>
124-85/18F5/86	AAGCAGCTCTGACTTGAATG [C/A] GAGAGGTTAATCAGACTGTG	<u>148</u>
125-85/18H10/86-3	TAGATTGAAGCAATCAAGAA [G/A] ATCTCAGACTTCATCACCCA	<u>149</u>
126-85/19B3/86	GCATCCAACTCCAAGGATGA [/C] CCTGCCAAGGTGCTGCTAACT	<u>150</u>
127-85/19C8/86	GAGCTCAGGGATGGTGGATC [A/T] GACTACCTTGGAAAGGGTGT	<u>151</u>
128-N1/19F4/N2	TGGGGTTAGTCGAAATAGGT [A/T] AAATGCTTTGAGTATGTGTA	<u>152</u>
129-N1/19H1/N2	TACGCGCAGCACGGACTTGC [G/A] ACGCAAGCAATCGAGCTTTT	<u>153</u>
130-85/20B4/86-1	GAAGCCCATGGTACGGAGCG [G/A] GAGAGAGTCAAGTACTTGGG	<u>154</u>

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131-N1/20B12/N2	AACGGGTCACTGCTAAATCA [T/A] AAGGATCACAAAGGCTGGAC	<u>155</u>
132-85/20C12/86	CTAGCCTACTTTGGGAAAAG [/T] TTCGTTATGTTTGTGTGG	<u>156</u>
133-85/20D2/86	GACTTCAAGGACTTCGCCGG [A/C] AAATGCTCCGACGCTGTCAA	<u>157</u>
134-85/20D3/86-2	GAGAGGGCTACATGCAGCT [G/A] AAGAGGCTGAGGGGGCTAAA	<u>158</u>
135-85/20D6/86-4	GATGTTCAACCTATGAAGAA [G/C] AAACCCGAGGACCAACGAG	<u>159</u>
136-85/20D6/86-5	CCATTAGTGAGGGAGCATGT [T/A] CCTGTACATTTTGATGATTG	<u>160</u>
137-85/20D6/86-8	AAACACATCGCCAAAAGATCC [CG/AA] ACACTCGAGAAAAGAGTGGAG	<u>161</u>
138-N1/20D8/N2	CTCATAGGGGATCTGGAGTA [T/G] GCAAATCGAATCTCCTCTCC	<u>162</u>
139-N1/20E1/N2	TGCACGCCCTCACTTGTTCCT [T/A] CCAATCTGACATCAAGGATT	<u>163</u>
140-N1/20F1/N2-1	NGTGTTTTGGAGGTGAAAGC [A/T] ACAAATGGAGATACCTTTTT	<u>164</u>
141-N1/BoC-a2/N3-2	CCCGAGCCATTAGGACAAGA [T/C] GACTTGCCGTTTGTACCAAAC	<u>165</u>
142-N1/BOC-A2/N3-1	CCCATCTCATCCTTTCTTGA [A/G] CCGTTGAATCAAGCTCCTTGG	<u>166</u>
143-N1/BoC-a2/N3-3	TACATTCTCATTTGGTTGGTT [C/A] TTGGGAAATAAAGTACCAAC	<u>167</u>
144-86/SC3	GCACGGCTAGAGTTGTTGC [C] AGAAGGAATGAACAATCTGA	<u>168</u>
145-N3/SC3/N4-1	CTTGAGACCTATAGTCCTGT [A/T] GTTCGGTCCGCCACAGTTTCG	<u>169</u>
146-N3/SC3/N5-1	CACAGTTCGTACAGTTCTTC [A/C] CATTGCCACTGTTATGCAC	<u>170</u>
147-N1/SC3/N3-1	GAAGCGTCCACTATCTTGA [A/G] ACCTATAGTCCCTGTTGTTCG	<u>171</u>
148-86/SC3/N4-1	TCCCGGAAATCTTGCTGAAA [A/C] CGTTTACCTGCGACAACCCAG	<u>172</u>
149-B11/N5-1	ATGTC'TTCAAAGTGCTCTGT [T] GCAACGCACGTCCGAAACAAG	<u>173</u>